

Proposed Amended Claims for U.S. Application No. 10/542,831
(Our Ref.: 25943-0004US1)

1. (Currently Amended) A pressure package system for pressurizing a fluid to be delivered, the system comprising:

a pressure package comprising:

a product chamber for holding the fluid, and

a working pressure chamber for holding a propellant at a substantially constant working pressure, the working pressure chamber having an opening,

a high-pressure chamber configured to hold propellant in supply at a pressure higher than the working pressure,

a pressure controller in a fluid connection between the working pressure chamber and the high-pressure chamber, the pressure controller being disposed within the high-pressure chamber and comprising a reference pressure chamber confining a gas at a reference pressure,

a cylinder in the high-pressure chamber having first and second open ends, the first open end connecting to the opening of the working pressure chamber, and the second open end being closed off by the pressure controller, and

a wall movable relative to the pressure controller, the wall comprising a slidable plunger, at least a portion of a first side of the wall bounding at least a portion of the working pressure chamber and a second side of the wall facing away from the working pressure chamber, at least a portion of the second side of the wall bounding at least a portion of the product chamber;

wherein, the pressure controller is configured to supply the propellant from the high-pressure chamber to the working pressure chamber to keep the working pressure in the working pressure chamber substantially constant and the supply of the propellant to the working pressure chamber is determined based on the reference pressure.

2. (Previously Presented) A pressure package according to claim 1, characterized in that the pressure package comprises a provision for opening the pressure package for the purpose of allowing fluid operatively contained in the product chamber to flow out of the product chamber.

3. (Previously Presented) A pressure package according to claim 1, characterized in that the wall is designed to be movable relative to the pressure package.

4. (Previously Presented) A pressure package system according to claim 2, characterized in that the wall comprises a plunger.

5. (Withdrawn) A pressure package system according to claim 1, characterized in that the first side of the wall bounds the working pressure chamber substantially completely.

6. (Previously Presented) A pressure package system according to claim 1, characterized in that the product chamber is further bounded partly by the pressure package.

7. (Cancelled) ~~A pressure package system according to claim 1, characterized in that the working pressure chamber comprises an inner space of a balloon in which, in use, the propellant can be received.~~

8. (Cancelled) ~~A pressure package system according to claim 1, characterized in that the working pressure chamber comprises an inner space of a bellows in which, in use, the propellant can be received.~~

9. (Withdrawn) A pressure package system according to claim 1, characterized in that the second side of the wall bounds the product chamber at least substantially completely.

10. (Withdrawn) A pressure package system according to claim 9, characterized in that the working pressure chamber is further at least partly bounded by inner walls of the pressure package.

11. ~~(Cancelled) A pressure package system according to claim 9, characterized in that the product chamber comprises a bag with an opening, the opening linking up with the provision arranged in the pressure package for opening the pressure package.~~

12. ~~(Cancelled) A pressure package system according to claim 11, characterized in that the bag is manufactured from a material having a low coefficient of friction.~~

13. ~~(Cancelled) A pressure package system according to claim 2, characterized in that the product chamber comprises a bellows with an opening, the opening linking up with the provision arranged in the pressure package for opening the pressure package.~~

14. (Previously Presented) A pressure package system according to claim 1, characterized in that the propellant is included in the high-pressure chamber.

15. (Previously Presented) A pressure package system according to claim 14, characterized in that the propellant comprises an inert gas.

16. (Previously Presented) A pressure package system according to claim 15, characterized in that the inert gas comprises a gas from the group consisting of nitrogen and carbon dioxide.

17. (Previously Presented) A pressure package system according to claim 1, characterized in that the system is of multi-part design, with a first part comprising the pressure package and a second part comprising the pressure controller with the high-pressure chamber.

18. (Original) A pressure package system according to claim 17, characterized in that the first part and the second part are integrally connected with each other.

19. (Original) A pressure package system according to claim 17, characterized in that the first part and the second part are designed as loose items and are connectable with each other for use.

20. (Previously Presented) A pressure package system according to claim 1, characterized in that in use the pressure controller is fixed with respect to the pressure package.

21. (Currently Amended) A pressure package system according to claim 2, characterized in that the pressure package is substantially cylinder-shaped, the pressure package being provided with a first end and a second end, the pressure package being further provided with an inlet opening for the propellant situated adjacent the first end and wherein the provision for opening the pressure package is situated adjacent the second end.

22. (Cancelled) ~~A pressure package system according to claim 7, characterized in that the balloon is designed such that the balloon, while being filled with the propellant, stretches substantially in an axial direction of the pressure package.~~

23. (Cancelled) ~~A pressure package system according to claim 8, characterized in that the bellows is so designed that the bellows, when being filled with the propellant, expands substantially in an axial direction of the pressure package.~~

24. (Previously Presented) A pressure package system according to claim 1, characterized in that the pressure package is made of a box-like design.

25. (Previously Presented) A pressure package system according to claim 1, characterized in that the pressure package is manufactured substantially from a plastic material.

26. (Previously Presented) A pressure package system according to claim 1, characterized in that the pressure controller is fixed with respect to an inner wall of the high-pressure chamber.

27. (Currently Amended) An article for pressurizing a fluid to be delivered, comprising:

a product chamber configured to hold the fluid,

a working propellant chamber having a movable wall in communication with the fluid and configured to hold a propellant at a working pressure, at least a portion of a first side of the movable wall bounding at least a portion of the working propellant chamber, ~~and~~ at least a portion of a second side of the movable wall, facing away from the working propellant chamber, bounding at least a portion of the product chamber such that the fluid is separated from the propellant, and the working propellant chamber having an opening,

a reservoir propellant chamber configured to hold the propellant at a pressure higher than the working pressure,

a pressure controller in a fluid connection between the working propellant chamber and the reservoir propellant chamber, the pressure controller being disposed within the reservoir propellant chamber and comprising a reference pressure chamber confining a gas at a reference pressure, the reference pressure determining the working pressure in the working propellant chamber, and

a cylinder in the reservoir propellant chamber having first and second open ends, the first open end connecting to the opening of the working propellant chamber, and the second open end being closed off by the pressure controller;

wherein the movable wall is movable relative to the controller and comprises a slidable plunger, and, upon release of the fluid from the product chamber, the movable wall is configured to move to decrease a volume of the product chamber and the pressure controller is configured to deliver the propellant from the reservoir propellant chamber to the working propellant chamber to keep the working pressure within the working propellant chamber substantially constant.

28. (Cancelled)

29. (Cancelled) ~~The article of claim 27, wherein the movable wall is elastic.~~

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30. (Cancelled) ~~The article of claim 27, wherein the movable wall comprises a bellows.~~

31. (Currently Amended) An article for pressurizing a fluid to be delivered, comprising:

a product chamber comprising a fluid to be delivered,

a working propellant chamber having a movable wall in communication with the fluid and comprising a propellant at a working pressure, at least a portion of a first side of the movable wall bounding at least a portion of the working propellant chamber, ~~and~~ at least a portion of a second side of the movable wall, facing away from the working propellant chamber, bounding at least a portion of the product chamber such that the fluid is separated from the propellant, and the working propellant chamber having an opening,

a reservoir propellant chamber comprising the propellant at a pressure higher than the working pressure,

a pressure controller in a fluid connection between the working propellant chamber and the reservoir propellant chamber, the pressure controller being disposed within the reservoir propellant chamber and comprising a reference pressure chamber confining a gas at a reference pressure, the reference pressure determining the working pressure in the working propellant chamber, and

a cylinder in the reservoir propellant chamber having first and second open ends, the first open end connecting to the opening of the working propellant chamber, and the second open end being closed off by the pressure controller;

wherein the movable wall is movable relative to the controller and comprises a slidable plunger, and, upon release of the fluid from the product chamber, the movable wall moves to decrease a volume of the product chamber and the pressure controller delivers the propellant from the reservoir propellant chamber to the working propellant chamber to keep the working pressure within the working propellant chamber substantially constant.